

REMARKS

The present application includes claims 1-20. Claims 1-20 have been rejected by the Examiner. By this Amendment, claims 1, 8, 11 and 12 have been amended. Claim 4 has been canceled. New claims 21-25 have been added.

Claim 8 was rejected under 35 U.S.C. 112, second paragraph, due to lack of antecedent basis for the phrase "said selecting step." By this Response, claim 8 has been amended to properly recite "said determining step" which has proper antecedent basis in the claim. Therefore, the Applicant submits that the rejection has been overcome.

By this Response, claims 1 and 11 have been amended to recite that a signal-to-noise ratio is computed for a region of an image, rather than for the image as a whole. Filter parameters are selected and used based on the signal-to-noise ratio for the region. Claim 12 has been amended to recite that a plurality of signal-to-noise ratios are determined for a plurality of regions in the image. Such limitations are not taught by the prior art of record, and the Applicant respectfully requests allowance of these amended claims and their dependents.

The Examiner has indicated that claims 14 and 16-19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. By this response, new independent claims 21-25 have been added to reflect the above claims rewritten in independent form. The Applicant respectfully submits that these claims should be allowable.

Claims 1-13, 15 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ustuner (U.S. Pat. No. 6,423,003). The Applicant respectfully submits that the claims of the present application are allowable over Ustuner for at least the following reasons.

Ustuner relates to an ultrasonic imaging system including a processor that varies receive signal path parameters as a function of the signal to noise ratio of the echo signal. Abstract. Background noise information is acquired and receive signals are processed as a nonlinear function of the comparison between the receive signals and the background noise values. Abstract. Signal to noise ratio computation and processing is done in Ustuner with respect to the entire image, as opposed to regions within the image. The system of Ustuner looks at noise images and received ultrasound images and computed signal to noise ratio data and adaptive filtering for the *entire image*, as opposed to one or more individual regions within the image. Col. 1, lines 53-63; col. 3, line 40 – col. 4, line 14.

Ustuner does not teach computing signal-to-noise ratio for a region in an image and selecting parameters for an image filter framework based on the signal-to-noise ratio for the region, as recited in independent claim 1. Ustuner does not teach regional filtering of an image by computing at least one signal-to-noise ratio for at least one region of an image, determining a filter parameter for the at least one region based on the at least one signal-to-noise ratio and processing the at least one region of the image based on the filter parameter. These limitations are recited in independent claim 6. Again, the discussion in Ustuner is with respect to an image as a whole, rather than regions. Further, Ustuner does not teach a signal-to-noise ratio processor for determining a signal-to-noise region for a region of an image, a parameter selection unit for selecting at least one filter parameter for the region based on the signal-to-noise ratio, and an

image filter for filtering the region in the image based on the at least one filter parameter. These limitations are recited in independent claim 11.

Additionally, with respect to claims 2, 7 and 20, Ustuner does not teach selecting parameters based on user preference, but rather teaches selecting parameters based on a specific set of equations relating to signal-to-noise ratio for the image. With respect to claims 3, 4, 8, 13, 14, 15, 16, 17, 18 and 19, Ustuner fails to teach locally varying parameters and globally varying parameters, rather focusing on the entire image. Col. 5, line 27 0 col. 7, line 5.

Thus, the Applicant respectfully submits that the claims of the present application should be allowable over the art of record. An action to that effect is respectfully requested.

CONCLUSION

It is submitted that the present application is in condition for allowance and a Notice of Allowability is respectfully solicited. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 070845.

Respectfully submitted,

Date: February 28, 2007


Christopher N. George
Reg. No. 51,728

McAndrews, Held & Malloy, Ltd.
34th Floor
500 West Madison Street
Chicago, Illinois 60661
Telephone: (312) 775-8000
Facsimile: (312) 775-8100